



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/312,073	05/13/1999	MINORU USUI	448563/163	2072

26610 7590 06/12/2006

STROOCK & STROOCK & LAVAN LLP  
180 MAIDEN LANE  
NEW YORK, NY 10038

EXAMINER
----------

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/312,073

Applicant(s)

USUI ET AL.

Examiner

Michael P. Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14, 36-39, 42-57, 62-65, 68-73, 83-90, 92, 93, 95, 96 and 114-133 is/are allowed.
- 6) ☒ Claim(s) 15, 17, 18, 21-23, 58, 61, 97, 98, 101, 103, 106, 107 and 111-113 is/are rejected.
- 7) ☒ Claim(s) 19, 20, 60, 99, 100 and 108-110 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4-14-06, 3-30-06, 12-20-05</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 11-15, 17-23, 36-39, 42-58, 60-65, 68-73, 83-90, 92, 93, 95-101, 103 and 106-133.

### **DETAILED ACTION**

The Amendment filed on March 30, 2006 has been acknowledged.

#### ***Claim Objections***

Claims 17, 18, 21, and 61 are objected to because of the following informalities:

- The claims depend from canceled claims.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15, 17, 18, 21-23, 58, 61, 97, 98, 101, 103, 106, 107, and 111-113 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinada et al. (US 5,790,158).

Regarding claims 15, 58, and 97, Shinada et al. discloses an ink cartridge (Figs. 15's) for an ink jet printer (Fig. 1), comprising:

Art Unit: 2863

- a housing (501) having walls (walls of 501) and an opening (opening covered by 516), said housing containing ink (ink cartridge, Abstract, line 1), a top wall (wall of 516) of said housing being constituted by a lid (516) covering said opening of said housing (Fig. 15a);

- at least one ink chamber (504, 505, 506) defined by said housing and said lid (Fig. 15b);

- an ink supply port (513, 513', 513'') formed on one of the walls of said housing (Fig. 15a);

- at least one recess (541, 541', 541'') forming a space in an outer surface of said lid (Fig. 18a) when the ink cartridge is packed under a vacuum condition (column 10, lines 23-27), the pressure within said space being lower than the atmospheric pressure when the ink cartridge is packed (column 10, lines 25-26);

- a seal member (542) adhered to the outer surface of said lid (Figs. 18a, 18b),

- wherein said recess is exposed to an exterior of the ink cartridge (Fig. 18a) when the seal member is adhered to the outer surface of said lid (Figs. 18a, 18b) and said recess is partially covered by said seal member adhered to the outer surface of said lid (Figs. 18a, 18b).

Regarding claim 17, Shinada et al. discloses a portion of said seal member is removable (Figs. 18a, 18b), and said recess is disposed under the removable portion of said seal member (Fig. 18a).

Art Unit: 2863

Regarding claim 18, Shinada et al. discloses that said recess is disposed on a part of said lid which is spaced apart from said ink supply port (Figs. 18a, lid 516 is spaced apart from ink supply port 513, Fig. 15a).

Regarding claims 21 and 61, Shinada et al. discloses a plural number of said recesses are formed in the outer surface of said lid (Figs. 18a, 18b).

Regarding claims 22 and 97, Shinada et al. discloses a fine, circuitous groove (540, 540', 540'') formed in one surface of said lid where said recess is formed (Figs. 18a, 18b).

Regarding claim 23, Shinada et al. discloses an air communication hole (holes of 541, 541', 541'') formed in said lid for communicating the interior of the ink cartridge with the atmospheric air (column 15, lines 40-41), said air communication hole being disposed in the vicinity of said recess (Figs. 18a, 18b).

Regarding claim 58, Shinada et al. further discloses an ink jet printer (Fig. 1), comprising:

- a carriage (1);
- a print head (4) including a plurality of nozzles through which ink is ejected (inherent feature of print head) mounted on said carriage (Fig. 1);
- said ink cartridge being mounted on the carriage (Fig. 1).

Regarding claim 97, Shinada et al. further discloses a narrow groove (540, 540', 540"), sealed by a film (542) to define a capillary, is formed on a surface of the lid (Fig. 18a), one end of the narrow groove communicating with the atmosphere communication port (514, 514', 514"), and the other end of the narrow groove communicating with an opening to be open to the atmospheric air (openings of 541, 541', 541"), the narrow groove occupying only a portion of the surface of the lid (Figs. 18a, 18b), the outer surface of the lid having a portion where the narrow groove is not formed (Figs. 18a, 18b), and wherein a recess (segments of 541, 541', 541") for storing a negative pressure under vacuum (column 10, lines 23-27) is formed on the portion of the outer surface of the lid where the narrow groove is not formed (Figs. 18a, 18b).

Regarding claim 98, Shinada et al. discloses a plurality of the recesses (segments of 541, 541', 541") for storing the negative pressure under vacuum are formed so as to mutually communicate with each other (Figs 18a, 18b).

Regarding claim 101, Shinada et al. discloses that the film is sized so as not to cover fully the recess (Figs. 18a, 18b).

Regarding claim 103, Shinada et al. discloses a recess is formed in the edge of the lid (top surface of 516) and a portion of the film is received in the recess (film 542 covers recess, Figs. 18a, 18b).

Regarding claim 106, Shinada et al. discloses a rib is formed on a back surface of the lid (ribs on bottom surface of 516) opposite to the narrow groove (grooves 540, 540', 540" are on top surface of 516).

Regarding claim 107, Shinada et al. discloses a rib for pressing a porous member is formed on a back surface of the lid, and the narrow groove is opposite to the rib (Fig. 26a).

Regarding claim 111, Shinada et al. discloses that the film includes a first film (542) and a second film (545), the first film is adhered to cover the narrow groove to form the capillary and the second film is removably adhered across the first film (545 is across from 542, Fig. 18b).

Regarding claim 112, Shinada et al. discloses that the opening and the recess are covered by a film removably adhered to the lid (Figs. 18a, 18b).

Regarding claim 113, Shinada et al. discloses that the ink cartridge is packed by a packing member of an air impermeable film under a vacuum condition (column 10, lines 23-27).



***Allowable Subject Matter***

Claims 19, 20, 60, 99, 100, and 108-110 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11-14, 36-39, 42-57, 62-65, 68-73, 83-90, 92, 93, 95, 96, and 114-133 are allowed.

***Reasons For Allowance***

The **combination** as claimed wherein said recess is disposed on a part of said lid which is engageable with a member of the carriage when the ink cartridge is mounted on the carriage (claim 19) or a mounting lever mounted on the carriage wherein a projection projecting from the mounting lever is engageable with said recess (claim 60) or wherein the recess is partitioned by protruding portions into a plurality of recesses arranged in a grid shape (claim 99) or the narrow groove is defined by two protruding portions spaced from each other (claim 108) or the opening of each of the narrow grooves are enlarged toward an end portion thereof, and the plurality of the openings are arranged spreadingly in a fan shape (claim 110) is not disclosed, suggested, or made obvious by the prior art of record.

Reasons for allowance for the rest of the claims have already been indicated.

### ***Response to Arguments***

Applicant's arguments filed on March 30, 2006 have been fully considered but they are not persuasive.

With respect to amended claims 15, 58, and 97, Applicants argue that the claims are allowable.

Examiner's position is that the claims are disclosed by Shinada et al. as discussed above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-H.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2863

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MICHAEL NGHIEM  
PRIMARY EXAMINER

Michael Nghiem

June 5, 2006